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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/852,158	05/06/97	MATHUR S	MS1-151US

EXAMINER	

022801 TM02/1206
LEE & HAYES PLLC
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SPOKANE WA 99201

ART UNIT	PAPER NUMBER
2151	12

DATE MAILED: 12/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)
*U.S. GPO: 2000-473-000/44602

1- File Copy

Office Action Summary	Application No.	Applicant(s)	
	08/852,158	Mathur et al.	
	Examiner	Art Unit	
	George L. Opie	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1) X Responsive to communication(s) filed on 9/21/00 .

2a) ___ This action is **FINAL**. 2b) X This action is non-final.

3) ___ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) X Claim(s) 1-40 is/are pending in the application.

4a) Of the above claim(s) ___ is/are withdrawn from consideration.

5) ___ Claim(s) ___ is/are allowed.

6) X Claim(s) 1-40 is/are rejected.

7) ___ Claim(s) ___ is/are objected to.

8) ___ Claim(s) ___ are subject to restriction and/or election requirement.

Application Papers

9) ___ The specification is objected to by the Examiner.

10) ___ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ___ The proposed drawing correction filed on _____ is: a) ___ approved b) ___ disapproved.

12) ___ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)_ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ___ All b) ___ Some * c) ___ None of the CERTIFIED copies of the priority documents have been:

1. ___ received.
2. ___ received in Application No. (Series Code / Serial Number) ___.
3. ___ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ___ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

14) X Notice of References Cited (PTO-892)
15) ___ Notice of Draftsperson's Patent Drawing Review (PTO-948)
16) ___ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _.
17) ___ Interview Summary (PTO-413) Paper No(s). ___.
18) ___ Notice of Informal Patent Application (PTO-152)
19) X Other: Text Docs for USP6,003,061 USP5,881,284

DETAILED ACTION

1. Request for copy of Applicant's response on floppy disk:
Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk. Please include all pending claims along with your responsive remarks. Only the paper copy will be entered -- your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory, however, it will help expedite the processing of your application. Your cooperation is appreciated.

2. The U.S. Patents used in the art rejections below have been provided as text documents which correspond to the U.S. Patents. The relevant portions of the text documents are cited according to page and line numbers in the art rejections below. For the convenience of Applicant, the cited sections are highlighted in the *text documents*. Consistent with Office procedure, the U.S. Patents corresponding to the *text documents* are also included with this action.

3. Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jones et al. (U.S. Patent 6,003,061) in view of Kubo (U.S. Patent 5,881,284).

As to claim 1, Jones teaches a method of controlling memory usage (memory ... resource providers, p5 47-56) wherein one or more application programs execute in conjunction with an operating system (application programs that run simultaneously on a single machine, p3 24-45) and the operating system (management mechanism, Id.) wielding control over the application programs (arbitrating ... resource usage, Id.) to reduce memory usage (relinquishing the resources, p15 7-11). Jones does not explicitly disclose the additional limitations detailed below.

Kubo teaches setting a plurality of memory thresholds (threshold values are provided, p4 30-42).
It would have been obvious to combine the multiple threshold scheme as taught by Kubo with the teachings of Jones because an incremental governor provides an increasing (systematic escalation) of constraints on program operations that corresponds with the machine parameters, thereby facilitating the most efficacious processing of user applications by enabling executions to continue to certain times at which commensurate measures are triggered to maintain system integrity.

As to claims 2-6, "Official Notice" is taken that the limiting, closing, and terminating of a program are well known in the art (MPEP2144.03).

As to claim 7, "Official Notice" is taken that reclaiming unused stack memory is well known in the art (MPEP2144.03).

As to claim 8, one skilled in the software engineering art, working on memory conservation, would have included a provision for discarding read-only memory. The practice of efficiently managing memory directs disposal of storage sections that are not currently in use so that other pages can utilize the unused locations which are reserved but not needed/exploited.

As to claims 9-16, note the rejections of claims 1-8 above. Claims 9-16 are the same as claims 1-8, except claims 9-16 are computer program product claims and claims 1-8 are method claims.

As to claim 17, note the rejections of claims 5-8 above.

As to claims 18 and 19, the recitations regarding the reclaiming and discarding in connection with further thresholds would have been obvious modifications -- variations on claim 17 above.

As to claim 20, note the rejections of claims 3-5 above.

As to claim 21, note the rejection of claim 20. Claim 21 is basically the same as claim 20, but for the difference of the "requiring" in lieu of "prompting" a user to select the respective application at issue, which would have been an obvious modification for one skilled in the art.

As to claim 22, note the discussion of claim 17 above. Claim 22 is the same as claim 17, except claim 22 is a computer program product claim and claim 17 is a method claim.

As to claim 23, note the discussion of claim 1 above; claim 23 is an apparatus claim and claim 1 is a method claim. Claim 23 is the same as claim 1, but for the added limitation of virtual memory sans secondary storage which would have been an obvious modification as it has been known in the art.

As to claims 24-30, note the discussion of claims 2-8 above. Claims 24-30 are the same as claims 2-8 respectively, except claims 24-30 are apparatus claims and claims 2-8 are method claims.

As to claim 31, note the rejection of claim 20 which incorporates the claim 17 discussion too. Claim 31 is the same as claim 20, except claim 31 is an apparatus claim and claim 20 is a method claim.

As to claims 32 and 33, note the rejection of claim 2, which incorporates claim 1 limitations. Claim 32 is the same basically as the features in claim 2 sans the 2nd threshold.

As to claims 34-35, "Official Notice" is taken that the message loop facility for communicating messages to and from a program is well known in the art (MPEP2144.03).

As to claims 36-39, note the discussion of claims 32-35 above. Claims 36-39 are the same as claims 32-35, except claims 36-39 are computer program product claims and claims 32-35 are method claims.

5. Claim 40 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Jones et al. (U.S. Patent 6,003,061).

As to claim 40, Jones teaches an application program that resides in a computer-readable memory for execution by a processor in conjunction with an operating system (application programs that run simultaneously on a single machine, p3 24-45) the application program being responsive to a particular message (dynamic feedback, Id.) to reduce its current use of memory (relinquishing the resources, p15 7-11). Note that Jones teaches memory is a resource, p5 47-56. Jones does not explicitly teach the program message loop feature. "Official Notice" is taken that the message loop facility for communicating messages to and from a program is well known in the art, and it would have been an obvious modification of the program management as taught by Jones to include this mechanism, because the message loop facility provides an efficient communication/control mode.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (703) 308-9120 or via e-mail at *George.Opie@uspto.gov*. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.

AU 2151